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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,661	10/11/2006	Hirokazu Yoshimura	284132US2PCT	3843

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ALEXANDRIA, VA 22314

EXAMINER

AGGARWAL, YOGESH K

ART UNIT	PAPER NUMBER
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2622

NOTIFICATION DATE	DELIVERY MODE
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01/22/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/562,661	Applicant(s) YOSHIMURA, HIROKAZU	
	Examiner YOGESH K. AGGARWAL	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-52 is/are pending in the application.
- 4a) Of the above claim(s) 41-45 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40, 46-48 and 50-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Election/Restrictions

1. Applicant's election without traverse of claims 40, 46-47, 48 and 50-52 in the reply filed on 11/06/2009 is acknowledged.

Response to Arguments

2. Applicant's arguments with respect to claims 40, 46-47, 48 and 50-52 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 40, 46-47, 48 and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bach (US Patent # 4,861,163) in view of Elabd (US Patent # 5,760,403).

[Claims 40 and 48]

A method for forming (figure 6) and picking up an image by using an apparatus having an opening (see figure 3), an intermediate plane (figure 5, filter sheet 56), and a two-dimensional image pick-up device (photo-detector 78, 86 and comparator 50, figure 6), the method comprising the steps of: forming a first image of an object by waves of a first kind through the opening onto a front surface of the intermediate plane (56), converting the first undistorted image of the object to waves of a second kind emitting from the rear surface of the intermediate plane, the intermediate plane acting as a wave converter from the waves of the first kind to the waves of the second kind, the waves of the second kind detectable by the two-dimensional image pick-up

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device; forming a second distorted image by waves of a second kind onto an image sensor of the two-dimensional image pick-up device (col. 4 lines 48-col. 5 line 22). Bach fails to teach outputting a corrected image of the object by the two-dimensional image pick-up device, by using information of the first undistorted image and second distorted image for distortion calibration and a housing for integrating the opening, the intermediate plane, and the two-dimensional image pick-up device (see figure 6 shows the housing). However Elabd teaches a scintillation layer 20 that has patterns 24 and 26 in order to calibrate the image picked up (col. 5 line 46-col. 6 line 46, figures 1 and 4). Elabd also teaches that the calibration patterns 24 and 26 on the scintillation surface and the variable spatial frequency bar patterns 25 and 27 are similar to patterns on the CCD sensor chip (col. 6 lines 2-5) and are in exact registration with each other (col. 6 lines 21-35). The corrected image as shown at col. 7 line 46 depend upon VMAX and VMIN, wherein VMIN is the response to the bar pattern at col. 7 lines 1-5. Therefore taking the combined teachings of Bach and Elabd, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have outputting a corrected image of the object by the two-dimensional image pick-up device, by using information of the first undistorted image and second distorted image for distortion calibration that allow the precise evaluation of the medical imaging equipment as taught in Elabd (col. 6 lines 36-46).

[Claim 46]

Elabd teaches wherein the waves of the first kind are X-rays (col. 5 line 3).

[Claim 47]

Official Notice is taken that it is very well known to one skilled in the art to have the waves of the first kind are quantum waves of a particle due to dual nature of the particle so that a

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generalized waves are used making the system to be used in more than one system. Therefore taking the combined teachings of Bach and Elabd, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have the waves of the first kind are quantum waves of a particle due to dual nature of the particle so that a generalized waves are used making the system to be used in more than one system.

[Claim 50]

Official Notice is taken that it is very well known to one skilled in the art to have the waves to be visible so that the user sees the waves making the system more user-friendly and efficient.

Therefore taking the combined teachings of Bach and Elabd, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have it is very well known to one skilled in the art to have the waves to be visible so that the user sees the waves making the system more user-friendly and efficient.

[Claim 51]

Elabd teaches wherein the waves of the first kind are X-rays (col. 5 line 3).

[Claim 52]

Bach shows lenses and mirrors that cause distortion (figure 5). Elabd teaches a scintillation layer 20 that has patterns 24 and 26 in order to calibrate the image picked up (col. 5 line 46-col. 6 line 46, figures 1 and 4). Elabd also teaches that the calibration patterns 24 and 26 on the scintillation surface and the variable spatial frequency bar patterns 25 and 27 are similar to patterns on the CCD sensor chip (col. 6 lines 2-5) and are in exact registration with each other (col. 6 lines 21-35). The corrected image as shown at col. 7 line 46 depend upon VMAX and VMIN, wherein VMIN is the response to the bar pattern at col. 7 lines 1-5.

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Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOGESH K. AGGARWAL whose telephone number is (571)272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571)-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yogesh K Aggarwal/
Primary Examiner, Art Unit 2622